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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,364

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Joseph Zawierucha

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09/03/2009

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EXAMINER

SULLIVAN, DANIELLE D

ART UNIT

PAPER NUMBER

1616

NOTIFICATION DATE

DELIVERY MODE

09/03/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/583,364	Applicant(s) ZAWIERUCHA ET AL.	
	Examiner DANIELLE SULLIVAN	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,14-20 and 34-38 is/are pending in the application.
- 4a) Of the above claim(s) 36-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,14-20, 34 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 4-6, 14-20 and 34-38 are pending. New claims 36-38 were added in the amendment filed 5/29/2009.

Election/Restrictions

Applicant's election without traverse of herbicide B, carfentrazone and herbicide A, imazapyr in the reply filed on 9/30/2008 is acknowledged. Claims 36-38 are withdrawn as being directed to non-elected species, glyphosate as herbicide A.

Claims 1, 4-6, 14-20, 34 and 35 are currently under examination.

Withdrawn rejections

Applicant's amendments and arguments filed 5/29/2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn. A new rejection is herein set forth.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1, 4-6, 14-20, 34 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to use the

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invention commensurate to the scope of the claims. Applicants claim a method of controlling coniferous plants, however, Applicants have only demonstrated a method of destroying wildling pine selected from the group consisting of *Pinus taeda* and *Pinus elliottii*.

To be enabling, the specification of a patent must teach those skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation.

Breadth of Claims/ Nature of the invention

Claim 1 recites 'a method for controlling coniferous plants which is broad. The term "for controlling coniferous plants" covers anything from inhibiting the growth of coniferous plants to destroying coniferous plants. Additionally, the term encompasses all conifers which include plants other than pines, such as spruces, firs, cedars, juniper cypress and yew. The nature of invention requires substantive data to demonstrate supportive results.

State of the Prior Art

The use of herbicides for inhibiting *Radiata* pine growth is known (Maclaren, 1999). However, the use of herbicides for controlling all conifer species is unknown.

Level of One of Ordinary Skill & Predictability/Unpredictability in the Art

One of ordinary skill in the art would have known to use herbicides to control growth in *Radiata* pine. However, the ability to know which herbicides would destroy, inhibit growth or not affect all conifers is highly unpredictable to one skilled in the art.

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unless a showing of results demonstrates the effect.

The distinction between mechanical devices, which function predictably in different situations, and chemical or biological systems which may not, is well known in the art. The amount of guidance or instruction necessary is inversely proportional to the level of predictability of the art. A limited number of embodiments may provide broad enablement in mechanical or electrical cases involving predictable art, however chemical and physiological arts are less predictable and require guidance that is more extensive. See *In Re Fischer*, 427 F. 2d 839, 166 USPQ 24 and *Ex Parte Hitzeman*, 9 USPQ 2d 1823.

Guidance/Working Examples

There is no guidance provided within the specification to show how to use carfentrazone for controlling growth in all coniferous plants. The only working examples demonstrate a method of destroying *Pinus taeda* and *Pinus elliotli*.

In conclusion, lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993).

Therefore, one of ordinary skill in the relevant art would not be able to use the invention in a method for controlling coniferous plants.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-6, 14-20, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maclaren et al. (Chemical thinning of radiata pine, 1999) in view of Hacker et al. (US 2001/0031704).

Applicant's Invention

Applicant claims a method of treating coniferous plants by applying carfentrazone and a combination of imazapyr and carfentrazone. Claim 14 and 34 specify the application of carfentrazone and/or imazapyr is during site preparation (pre-emergence). Claim 15 specifies the ratio of A:B is from 1:5 to 200:1. Claim 16 specifies imazapyr is applied in amounts from 100 to 1400 g/ha. Claim 17 specifies carfentrazone is applied in amounts from 10 to 500 g/ha. Claim 18 and 35 specify application of carfentrazone and/or imazapyr is after emergence of the coniferous plants. Claims 19 and 20 limit the coniferous plants to those belonging to the Pinaceae family and species of Pinus.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

Maclaren et al. teach the use of imazapyr for the removal of undesirable Pinus tree species, specifically radiata pine (abstract; page 1, column 2).

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

Maclaren et al. does not teach treating coniferous plants with carfentrazone. It is for this reason that Hacker et al. is joined.

Hacker et al. disclose herbicide combination A+B where A is selected from imidazolinones, such as imazapyr and B is one or more herbicides including carfentrazone (abstract; [0126]). Preferably, the application rate of a herbicide A is 10-800 g a.s./ha and herbicide B is 1-150 g a.s./ha ([0063] and [0200]). Application can take place pre-emergence or post emergence [0271]. Hacker et al. teach that herbicide A in combination with herbicide B interact and allow synergistically increased effects that are unexpected when individual herbicides A and B are used alone [0026]. Although Hacker et al. focus on the use of the formulation to treat rice Herbicides A and B are taught as a foliar-acting herbicides [0046] and [0080]. Additionally, the composition are taught to be used against a broad spectrum of monocotyledonous and dicotyledonous as well as undesired plants that produce rhizomes, rootstocks or other perennial organs which are difficult to control [0271].

**Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Maclaren et al. and Hacker et al. to further include treating coniferous plants of the Pinaceae family with carfentrazone. One would have

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been motivated to include treating coniferous plants with carfentrazone because Hacker et al. teach the imazapyr and carfentrazone in combination allow synergistically increased effects that are unexpected when individually used alone. Therefore, one of ordinary skill in the art would have been motivated to utilize carfentrazone in combination with imazapyr for controlling coniferous plants. Furthermore, utilizing carfentrazone on coniferous plants would have a high predictability of success because Hacker et al. teach that carfentrazone and imazapyr are foliar-acting herbicides which attack rootstocks. Hence, utilizing carfentrazone one of ordinary skill would have been able to attack the foliage and roots of coniferous plants in order to control plant growth.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan
Patent Examiner
Art Unit 1616

/Mina Haghighatian/
Primary Examiner, Art Unit 1616